

a large amount of material to select from, we can promise the choicest of reading. It is desirable to make the articles as varied as is possible in a single branch of science, but we have concluded not to publish bare lists of plants as not being of sufficient interest to the general reader. A large edition of this number has been sent out as a specimen number, and we hope that it will procure an immediate and favorable response from all who receive it. We can, as formerly, promise our readers contributions from the leading botanists of the country, but we want notes from the rank and file as well, for it is from them after all that our chief support must come. We press our claims upon you now with more boldness as we have safely lived through the experimental age and have an established enterprise to call upon you to support.

Panicum littorale, n. sp.—Mr. Chas. Mohr has sent me from Mobile, Alabama, specimens of a *Panicum* which I cannot find described. It grows among the drifting sands of the Gulf coast, having strong running rhizomas, sending up from the joints upright culms about a foot high, very leafy below, the sheaths large and loose, those of the lower joints, where covered with sand, being destitute of blade; above, the leaves are rigid, distichous, standing out at a strong angle from the culm, 3 to 4 inches long, 2 to 3 lines broad at the base and gradually narrowed to the acute point, becoming convolute, the sheaths, margins and lower surfaces sparsely hairy, the upper leaves rather distant and narrower; the panicle shortly exserted, 2 to 3 inches long, of 5 or 6 branches, single at the joints, but little branched and loosely flowered and not pubescent; the spikelets are small, about a line long, smooth, the sterile flower staminate, of 2 palets, the lower glume very short, broad, obtuse, $\frac{1}{3}$ or $\frac{1}{4}$ as long as the upper, which is ovate, pointed, 7-nerved, and about equalling the upper flower.

In habit this species seems related to *P. amarum*, Ell., though it is smaller, with shorter leaves and much smaller panicle and flower. From its habitat Mr. Mohr suggests that this may properly be called *P. littorale*, in which I concur, as I cannot find that name previously appropriated. Mr. Chas. Mohr will furnish specimens on application.—GEO. VASEY.

In the GAZETTE for December, where I spoke of *Fraxinus Curtissii* there should have been a reference to Dr. Gray's Synop. Flora N. A., page 75.—G.V.

SHORTIA GALACIFOLIA RE-DISCOVERED.—A hundred years ago the elder Michaux collected, somewhere in the mountains of North Carolina, a specimen of a Pyrolaceous-looking plant, out of flower, or rather with

corolla and stamens fallen, a dehiscent capsule enclosed in a persistent imbricated calyx and surmounted by a persistent style. It was noticed in the *Flora Boreali-Americana*, which was prepared by L. C. Richard from Michaux's collections. Early in the year 1839, I found and examined this specimen in Michaux's herbarium, and I received from the hand of M. Decaisne a drawing and some fragments of it. In a paper treating of the botany of these mountains, contributed to this Journal in January, 1842, I ventured to found a genus upon this plant, under the above name, trusting that the diligent search prosecuted by myself and by all botanists visiting the region would duly bring it to light. The protracted failure of these endeavors has thrown an air of doubt over the minds of my associates in the search, as to the actual existence of any such plant. In 1868, I had the pleasure of announcing in this Journal (Ser. II, xi, 402) the discovery of this genus, not indeed where we were looking for it, but where experience had led me to expect that any or every peculiar Atlantic States type might recur, namely in Japan. That is, I identified the genus with the *Schizocodon uniflorus* of Maximowicz, which, singularly enough, was known only by specimens in the same condition *i. e.*, with calyx and gynæcium, but neither corolla nor stamens. The patent relationship of these specimens to *Schizocodon soldanelloides* of Zuccarini gave ground for a conjectural restoration of the missing organs; and I ventured the opinion that *Shortia* (of 1842) and *Schizocodon* (1843), whether of one genus or two, were most related to *Diapensia*. In the year 1870 (in Proc. Am. Acad., viii, 243) I reconstructed the order *Diapensiaceæ*, referred to a separate tribe, *Galarineæ*, the genera *Galar* and *Shortia*, and adopted the idea of a probable identity of *Schizocodon* with the latter. The next year Maximowicz decided that the two genera should be distinct, founding this conclusion upon the close seed-coat (confirmed in the Japanese *Shortia uniflora*) and the campanulate corolla, with lobes undulate-crenate instead of fimbriate, and upon some characters in the stamens, all these taken from a rude figure in the Japanese *Soo Bokf.*, iv. fol. 8, which is supposed to represent *S. uniflora*, although the leaves would (as Maximowicz rightly observes) refer it rather to *S. galacifolia*, these being all represented as acute or in one dubious case subcordate at base, instead of reniform-cordate. The identification as to genus is doubtless correct; but the analysis of the flower is too rude for reliance as to all relating to the stamens and the squamulæ. Happily I can now give the characters from an actual blossom.

For I have now received, at first indirectly from Mr. J. W. Congdon,

and at length directly from Mr. M. E. Hyams, of Statesville, North Carolina, a flowering specimen of the long-sought *Shortia galacifolia*. Hr. Hyams, or more strictly his son, George McQueen Hyams, collected it on a hill-side in McDowell County, N. C., in the district I had indicated as the most probable locality, viz: east of the Black Mountain. It was collected in May, 1877, but as its remarkable interest was unknown, it has only now been communicated to me. I will only state here, that the distinction between the two genera is probably definite, that our plant is perhaps identical in species with the one figured in the Japanese books (rather than with *S. uniflora*), although the corolla in ours is seemingly white, and the crenulation of the border of the lobes is stronger than that in the description and often double; that the anther, though not agreeing with Maximowicz's character, probably may agree with this Japanese representative, and may be generically distinguished from that of *Schizocodon*, unless other species afford transitions; and that the squamulæ are like those of *Schizocodon* and fully as large, but broader, narrowed or almost unguiculate at base, and attached to the very base of the corolla, while the filaments (said by Maximowicz to be "libera" probably in the sense of free from the corolla, as they are represented in the Japanese figure) are adnate to the corolla for most of their length. That is, the phrase "filamentis tubo corollæ adnatis" in Benth. and Hook. Gen. Pl. is correct, but I know no then extant authority for it, except the analogy with its relatives. Less fortunate are the characters: "Antheræ erectæ, didymæ . . . loculis oblique dehiscentibus," derived by Maximowicz from the Japanese figures, and the "antheræ breves . . . loculis divergentibus" of the Genera Plantarum; the anthers being larger than in any other genus of the order, and the cells in a just sense longitudinally dehiscent. But the anther is—as in all its relatives except the anomalous *Galax*—inflexed or incumbent on the apex of the filament, in this genus about horizontal, as are consequently the marginal sutures which run the whole length of the elongated-oblong cells. The pollen is simple and obscurely trigonous as seen on the field of the microscope. The style and stigma are as in *Schizocodon*, but the latter more capitate.—A. G. in *Am. Jour.* for December.

PLANTAGO RUGELII.—In a letter from Dr. J. J. Davis, of Racine, Wisconsin, the following is of general interest: "I find that people who are in the habit of indulging in plantain "greens" have long known that there were two kinds; the one *P. Rugelii*, toothsome; the other, *P. major*, bitter

and unpalatable. They distinguish *P. Rugelii* by a character I have not seen mentioned, viz: the petioles being purplish toward the base, a character that holds good so far as I have observed and one easily distinguished. That eminently practical botanist, the old cow, accepts *P. Rugelii* readily but rejects *P. major* after an olfactory test. It would seem that the reputed medicinal properties must reside in *P. major*, although both have been used indiscriminately, of course."

THE FLORA OF NORTHERN INDIANA.—Having been occupied mostly with the flora of that part of Indiana bordering upon the Ohio river, I had often looked longingly upon the map of the state at the northern tier counties, bordering upon Michigan lake and state, and well filled with small lakes and tamarack swamps. It seemed as if some of our best plants must be found there, and in my preparation for publishing a catalogue of the flora of the state, I could find no report or no working botanist from that region. Last summer an opportunity presented for making a hasty survey for myself and the result was most encouraging. Although many very excellent species were obtained, the richest result to my mind was the fine prospect of good things that might reward a diligent search, rather than those that were actually obtained. Accompanied by my enthusiastic pupil and assistant, Mr. Chas. R. Barnes, I spent some three or four weeks along the line of the Lake Shore and Michigan Southern Railroad, which crosses the state exactly in the region I wished to traverse. The Kankakee river forms a natural boundary on the south side of the northwestern corner of this region, a slow, sluggish stream as it crosses Indiana, but rapid enough in Illinois. The consequence is that it has spread out on either side into a succession of extensive marshes, which render approach to the river well nigh impossible in many places. To the east lie the headwaters of the St. Joseph and Tippecanoe rivers, both of which are lost in an intricate system of small lakes, reminders of the time when one enormous lake covered it all. This is the lake region of the state, in no case extending farther south than the second tier of counties, and containing thousands of depressions, filled either with clear bodies of water or swamps. The time of our visit was rather unfortunate for the best results, too early for the best fall flowers and too late for the spring ones, and we had to note the former in bud and the latter in fruit, but we saw enough to know that the region was well worthy a thorough exploration at different seasons. The wildest, most unfrequented